

## Tilburg University

### Visual e-commerce

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*Published in:*  
Indian Journal of Research

*DOI:*  
[10.15373/22501991](https://doi.org/10.15373/22501991)

*Publication date:*  
2017

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication in Tilburg University Research Portal](#)

*Citation for published version (APA):*  
Broeder, P., & Rutten, J. (2017). Visual e-commerce: Cross-cultural differences between India and Europe. *Indian Journal of Research*, 6(9), 598-600. [6,9]. <https://doi.org/10.15373/22501991>

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## ORIGINAL RESEARCH PAPER

Commerce

### VISUAL E-COMMERCE: CROSS-CULTURAL DIFFERENCES BETWEEN INDIA AND EUROPE

**KEY WORDS:** Consumer behavior, persuasion marketing, cross-cultural

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#### ABSTRACT

Visualization is important in online shopping. This study investigates the effect of visual product reviews in web shops, with a special interest for cultural differences between online consumers in India and the Netherlands. Two web shops were designed with the same sport shoes. One web shop showed the sport shoes with a visual review. The other web shop showed the same sport shoes with no visual review. 160 consumers from the Netherlands, and 183 consumers from India (mean age 23.4 yrs.) evaluated the products in the two web shop conditions. The Indian consumers had a higher purchase intention than the Dutch consumers. Adding a visual review to the products in the web shop did not result in a higher purchasing intention. The Indian consumers also had a higher (utilitarian) attitude towards the web shop than the Dutch consumers. The recommendation is to include social presence information. This will enhance the persuasive effect of visual product reviews.

#### INTRODUCTION:

Offline shopping is a social and entertaining activity, while online shopping is seen more as impersonal and automated. Visual information in web shops significantly increases online social presence (Hassanein & Head, 2007). This can lead to reduction of risk perception and, a more positive attitude towards a web shop and a higher purchase intention (Kumar & Benbasat, 2002). This study focusses on preferences of Indian and Dutch consumers in an online web shop.

Motivations for online shopping. The reason for the rapid growth of web shops is the many advantages offered by online shopping. Consumers might have utilitarian or hedonic motivations for online buying behavior (Forsythe et al., 2006).

Utilitarian motivations (or attitudes) are task-related goals and focus on the tangible outcome of the online shopping experience: e.g., convenience, a wider range of products to choose from, lower prices, and it being easier to compare prices and products.

Hedonic attitudes arise from the social and emotional experience, and the positive feelings that one gains from the online shopping: e.g., shopping as an adventure, the relief of stress, and value shopping (searching for bargains and buying products at a good price).

#### Visual e-commerce:

Consumers have developed skills to overcome the lack of social presence in online shopping. They search for additional product and usage information. Through visual information, the features of products can be better communicated. For example, images showing people wearing a product contribute to a better understanding of the characteristics and functionalities of a product. Web shops increasingly incorporate Instagram pictures by using tags that online consumers add to their pictures. Not only Instagram pictures are used but also photos uploaded on Facebook, Twitter, and Pinterest.

#### Cultural differences:

Consumers share with the in-group cultural values, beliefs, and norms, in which they differ in information processing, product and brand attitude (De Mooij, 2010). Therefore, web shops should take into account that the cultural background of an online consumer could influence the intention to buy a product online. Individualism/collectivism.

The degree of individualism/collectivism (expressed in index scores: 1=lowest, and 100=highest) is one of Hofstede's (2017) cultural dimensions. This might explain differences between cultures in online shopping and the influence of visual information in a web shop.

Individualism is related to how independent people in a society are

with respect to the group they are a part of. Individualism is related to whether the self-image of individuals is determined by the group or by themselves. The Netherlands score high on individualism (Index=80). This means that Dutch people have weak ties with their social network, and act independently with less regard for the opinion of others in their social network. In countries with a more individualistic society, people are not strongly connected to a larger social network. Individualistic societies tend to trust strangers more quickly because they have a strong belief in rules and expect others to follow these rules.

In contrast, in India, a collectivistic society (Index=48), people prefer to be part of a social network with strong ties. This means that their actions and opinions are highly influenced by family and friends. Consumers in a collectivistic society have less trust in others outside a social network. This lack of trust in strangers is also experienced in web shops (Yoon, 2009).

#### CROSS-CULTURAL CASE STUDY

##### Research question and hypothesis.

What is the effect of visual product reviews in a web shop?

- Hypothesis 1: Visual reviews result in attitudes that are more positive.
- Hypothesis 2: Visual reviews result in higher purchase intentions.
- Hypothesis 3: There is a difference between Indian and Dutch consumers.

#### Method:

##### Design:

A 2x2 design was used with visual review as independent variable (present vs. absent). The dependent variables were attitude and purchase intention. Participants were randomly assigned to two web shops, with three sport shoes (green, grey, orange), with or without a visual review.

##### Sample:

In 2014, a total of 343 people completed an online survey: 209 females and 234 males, mean age was 23.4 yrs. (age range 17-34 yrs.). There were 160 Dutch and 183 Indian participants. Cultural background was established through self-identification. The mostly mentioned Indian identifications were: Indian (65), Hindu (30), Keralite (22), Asian (11), Dravidian (6), and Bengali (5).

##### Web shop images:

Three Nike sport shoes were presented in a web shop content (see Appendix). Participants in the visual condition saw a visual Instagram-like review uploaded by another online consumer. The accompanying text was as follows: Here's how other shoe fans are wearing and sharing their gear. Participants in the control condition saw the shoes without a visual review.

#### Figure 1: Sport shoe with visual review

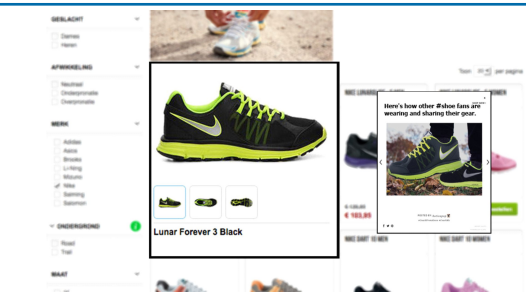
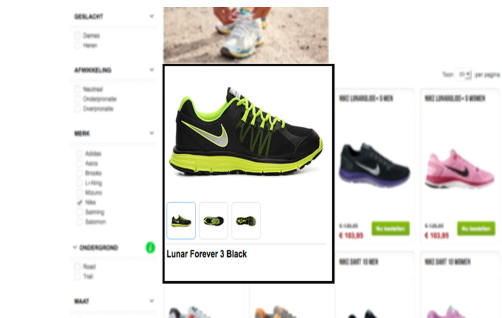


Figure 2: Sport shoe without visual review



#### Questionnaire:

The respondents of the online questionnaire were asked to "imagine that you want to buy the new sport shoe in the web shop ... there is no budget limit" and then answered the following:

- Shopping frequency: Two questions: How often do you buy products via the Internet? and When did you last buy a product via the Internet?
- Online shopping: How do you feel about web shop? (5-point scale: (very) positive/negative).
- Brand attitude: How do you feel about the brand Nike? (5-point scale: (very) positive/negative).
- Hedonic attitude: How do you feel about the web shop? (5-point scale with five adjective pairs: irritating/enjoyable, nice/unappealing, frustrating/relaxing, (no)fun, and (not) amusing).
- Utilitarian attitude: How do you feel about the web shop? (5-point scale with four adjective pairs: (not)informative, (un)necessary, pointless/ useful, and sensible/stupid).
- Purchase intention: Five statements (5-point scale, strongly (dis)agree). e.g., I would like to buy this product for myself. The buying chance for this product is low, etc.

The internal consistency of the scales was acceptable with Cronbach's  $\alpha$  higher than .70: for hedonic attitude  $\alpha = .91$ , for utilitarian attitude  $\alpha = .91$ , and for purchase intention  $\alpha = .84$ .

#### Results:

Shopping frequency: Most of the participants purchased products online once a month (Indian consumers 20%, Dutch consumers 45%), or once in a few months (Indian consumers 57%, Dutch consumers 48%). The most recent online purchase was mostly, less than one month ago (Indian consumers 70%, Dutch consumers 84%).

#### Online shopping and brand attitude:

The attitude towards online shopping was higher for the Dutch consumers ( $M=3.94$ ,  $SD=0.59$ ) than for the Indian consumers ( $M=3.75$ ,  $SD=0.59$ ): ( $t(341)=2.27$ ,  $p<.01$ ). Adversely, Indian consumers had a higher attitude towards the brand Nike ( $M=4.21$ ,  $SD=0.70$ ) than the Dutch consumers ( $M=3.99$ ,  $SD=0.77$ ): ( $t(341)=2.68$ ,  $p<.01$ ).

#### Purchase intention:

The Indian consumers ( $M=3.18$ ,  $SD=0.04$ ) had a higher purchase intention than the Dutch consumers ( $M=2.66$ ,  $SD=0.05$ ). A factorial ANOVA confirmed the main effect of culture ( $F(1,339)=67.35$ ,  $p<.001$ ). There was no main effect for visual review ( $F(1,339)=0.51$ ,  $p=.48$ ).

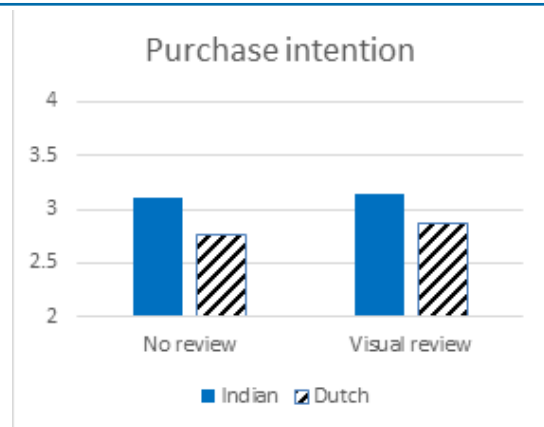


Figure 3: Purchase intention (Min=1, Max=5)

#### Hedonic attitude:

The Indian consumers ( $M=3.39$ ,  $SD=0.72$ ) also had a slightly higher hedonic attitude towards the web shop, than the Dutch consumers ( $M=3.28$ ,  $SD=0.53$ ). The factorial ANOVA showed no significant main effects, neither for culture ( $F(1,339)=2.69$ ,  $p=.10$ ), nor for review ( $F(1,339)=0.82$ ,  $p=.37$ ). Although, more specifically, in both conditions the Indian consumers assessed the web shop as more enjoyable, than the Dutch consumers.

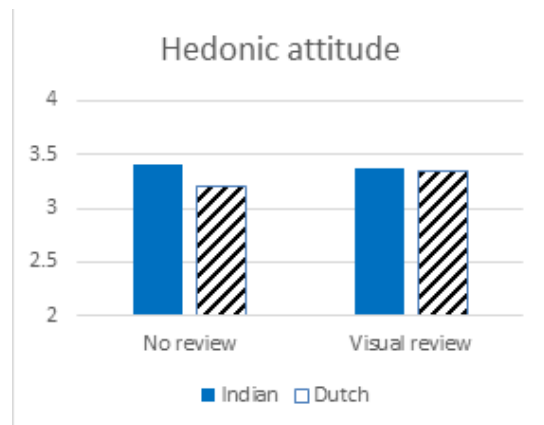


Figure 4: Hedonic attitude (Min=1, Max=5)

#### Utilitarian attitude:

The Indian consumers ( $M=3.46$ ,  $SD=0.77$ ) had a higher utilitarian attitude than the Dutch consumers ( $M=3.26$ ,  $SD=0.60$ ). A factorial ANOVA confirmed the main effect of culture ( $F(1,339)=7.29$ ,  $p<.01$ ). Again, there was no main effect for visual review ( $F(1,339)=0.13$ ,  $p=.72$ ). More specifically, the Indian consumers assessed the web shop with the visual review as more necessary and more sensible, than the Dutch consumers.

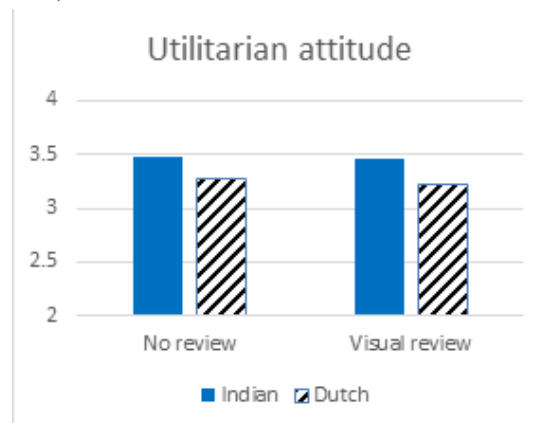


Figure 5: Utilitarian attitude (Min=1, Max=5)

## CONCLUSION:

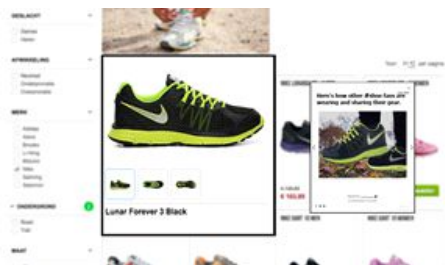
In this study, Indian consumers had a higher purchase intention of the product and more positive hedonic and utilitarian attitudes towards the web shops. These differences could partly be explained by the more positive attitude of the Indian consumers towards the brand Nike. No effect of visual reviews on purchase intention was found. This is in contrast to previous studies, which found several positive effects of social proof in reviews on online consumers (Moe & Trusov, 2011; Amblee & Bui, 2011). A possible explanation for the absence of an effect of visual reviews on purchase intention in this study could be the low social presence in the stimuli used in the visual review condition. Maybe, the participants in this study did not perceive similarity with the Instagram pictures (and thus perceived less social presence). The visual reviews showed only the sport shoes with legs. Maybe, the products should be presented in socially rich images, with people in dynamic settings (Hassanein & Head, 2007).

In general, the results of this study confirmed a relation between the attitude towards the web shop and the purchase intention. Consumers with a higher purchase intention also had a more positive attitude towards the web shop.

The most important recommendation of this study is that because visuals have started to play a major role in e-commerce (due to the growth of platforms like Instagram and Pinterest), web shops should respond by integrating these visual reviews, which are already widely available, into their marketing strategy.

## APPENDIX:

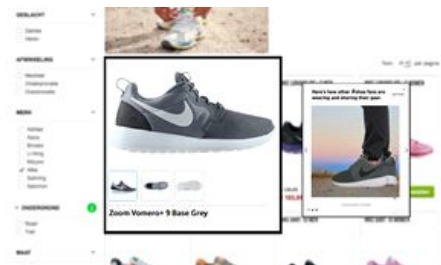
### Sport shoes with visual reviews



### Sport shoe 1



### Sport shoe 2



### Sport shoe 3

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